

SHEET INDEX		
CONTENTS	SHEET NO.	SHEET ISSUE
SHEET INDEX SUPPORTING INFORMATION CURRENT DRAIN USED ON	1	2
NOTES		
RECORD OF CHANGES CIRCUIT DESCRIPTION		
CIRCUIT SCHEMATIC COMPONENT LIST	2	2

SYMBOL
STAGE THREE LEVEL SELECT
ELEMENT IDENT
A

TERM. NO.	FNCT.	TERM.	LOC.
GAL01	I	100	282
GAL02	002	002	282
GAL03	004	004	282
GAL04	005	005	282
GAL05	001	001	282
GAL06	101	101	282
GAL07	102	102	282
GAL08	104	104	282
GAL11		119	282
GAL12		119	282
GAL13		119	282
GAL14		119	282
GAL15		019	282
GAL16		019	282
GAL17		017	282
GAL18		016	282
GAL20		105	282
GAL21		006	282
GAL22		007	282
GAL23		008	282
GAL24		009	282
GAL25		106	282
GAL26		109	282
GAL27		009	282
GAL28		102	282
GAL29		112	282
GAL30		112	282
GAL31		112	282
GAL32		112	282
GAL33		112	282
GAL34		112	282
GAL35		112	282
GAL36		013	282
GAL37		012	282
GAL38		010	282
GAL39		314	282
GAL40		315	282
GAL41		316	282
GAL42		317	282
GAL43		318	282
GAL44		319	282
GAL45		320	282
GAL46		321	282
GAL47		322	282
GAL48		323	282
GAL49		324	282
GAL50		325	282
GAL51		326	282
GAL52		327	282
GAL53		328	282
GAL54		329	282
GAL55		330	282
GAL56		331	282
GAL57		332	282
GAL58		333	282
GAL59		334	282
GAL60		335	282
GAL61		336	282
GAL62		337	282
GAL63		338	282
GAL64		339	282
GAL65		340	282
GAL66		341	282
GAL67		342	282
GAL68		343	282
GAL69		344	282
GAL70		345	282
GAL71		346	282
GAL72		347	282
GAL73		348	282
GAL74		349	282
GAL75		350	282
GAL76		351	282
GAL77		352	282
GAL78		353	282
GAL79		354	282
GAL80		355	282
GAL81		356	282
GAL82		357	282
GAL83		358	282
GAL84		359	282
GAL85		360	282
GAL86		361	282
GAL87		362	282
GAL88		363	282
GAL89		364	282
GAL90		365	282
GAL91		366	282
GAL92		367	282
GAL93		368	282
GAL94		369	282
GAL95		370	282
GAL96		371	282
GAL97		372	282
GAL98		373	282
GAL99		374	282
GAL100		375	282

SYMBOL

118	GAL11	PJ1	307
100	GAL01	PJ2	307
117	GAL12	PJ3	209
002	GAL02	PJ4	308
116	GAL13	PJ5	306
004	GAL03	PJ6	201
115	GAL14	PJ7	202
005	GAL04	PJ8	302
019	GAL15	PJ9	302
001	GAL05	PJ10	205
018	GAL16	PJ11	305
101	GAL06	PJ12	205
017	GAL17	PJ13	300
102	GAL07	PJ14	304
016	GAL18	PJ15	204
104	GAL08	PJ16	303
015	GAL19	PJ17	303
105	GAL09	PJ18	203
318	PJ		
317	PJ		
316	PJ		
315	PJ		
114	GAL11		
006	GAL01		
113	GAL12		
007	GAL02		
112	GAL13		
008	GAL03		
111	GAL14		
009	GAL04		
018	GAL15		
109	GAL05		
013	GAL16		
107	GAL06		
012	GAL17		
009	GAL07		
010	GAL18		
108	GAL08		
310	GAL09		
311	GAL10		
312	GAL11		
313	GAL12		

FC190
STAGE THREE
LEVEL SELECT

RECORD OF CHANGES				
DATE	PREV	STD	NFR	SEE
ISS	FNCT			DISC

CIRCUIT DESCRIPTION

FUNCTIONS

THIS CIRCUIT PACK PROVIDES TWO PULSE PATH SELECTION CIRCUITS. IN EACH CIRCUIT THE HIGH CURRENT PULSE PATHS ARE CONTROLLED FROM RELATIVELY LOW POWER SIGNALS ON INPUT LEADS. THIS CONTROL IS PROVIDED FOR SPECIFICATED CONTROLLERS.

DETAILED DESCRIPTION

IN THE UPPER CIRCUIT THE HIGH AMP CURRENT FLOWS INTO THE P2 LEAD AND OUT ONE OF THE LEADS P21-0, P26. THE PARTICULAR PATH USED IS SELECTED BY APPLYING 15 VOLTS TO ONE OF THE INPUT LEADS GAL01-08, GAL11-18, P2L50,1 AND GROUNDING LEAD N1.

IN THE LOWER CIRCUIT THE HIGH AMPLITUDE CURRENT PULSE FLOWS INTO ONE OF THE LEADS P41-8 AND OUT THE P4 LEAD. ONE OF THE EIGHT PATHS IS SELECTED BY APPLYING 15 VOLTS TO ONE OF THE INPUT LEADS GAL01-08, GAL11-18 AND GROUNDING LEAD N1.

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS
CAPACITANCE VALUES ARE IN MICROFARADS
VALUES PRECEDED BY THE SYMBOL - (PLUS)
OR - (MINUS) ARE IN VOLTS.

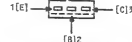
2. POWER AND GROUND TERMINALS FOR INTEGRATED CIRCUITS:

IC CODE	220 TERM.

3. BATTERY AND GROUND TERMINALS FOR THIS CIRCUIT PACK ARE AS FOLLOWS:

FUNCTION TERMINAL

4. THE TERMINAL NUMBER ARRANGEMENT OF THE 95A TRANSISTOR IS:



5. CLOSEST HORIZONTAL MOUNTING CENTERS IS 0.750 INCH.

6. INITIAL USE OF THE FC190 CIRCUIT PACK IS IN 50-SH110-01.

SYSTEM USED ON	DESIGN CONTROL
2. 5 ESS	IN

CURRENT DRAIN: 0.46

SHEET INDEX NOTES

SUPPORTING INFORMATION	
CATEGORY	NUMBER
CONNECTOR ON FRAME	947A 947C ON 947E
CIRCUIT PACK INFORMATION (DRAWING)	
SERIES FOR LATEST CLASS "A" CHANGE	
ACCEPTABLE SERIES	3

NOTICE- NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

FC190 CIRCUIT PACK
STAGE THREE LEVEL SELECT
CIRCUIT

1T11

STATO. SYMBOLS

DWG SIZE
6S

ISSUE
201

BELL LABORATORIES

CPS-FC190

2 SHEETS

COMPONENT LIST

CAPACITOR

DESIG	CODE
[17]C1-C17	45-20756, L1, .1
DIODE	CODE
[18]CR1-CR18	4568
[9]CR19-CR26	5758
[16]CR27-CR42	4568

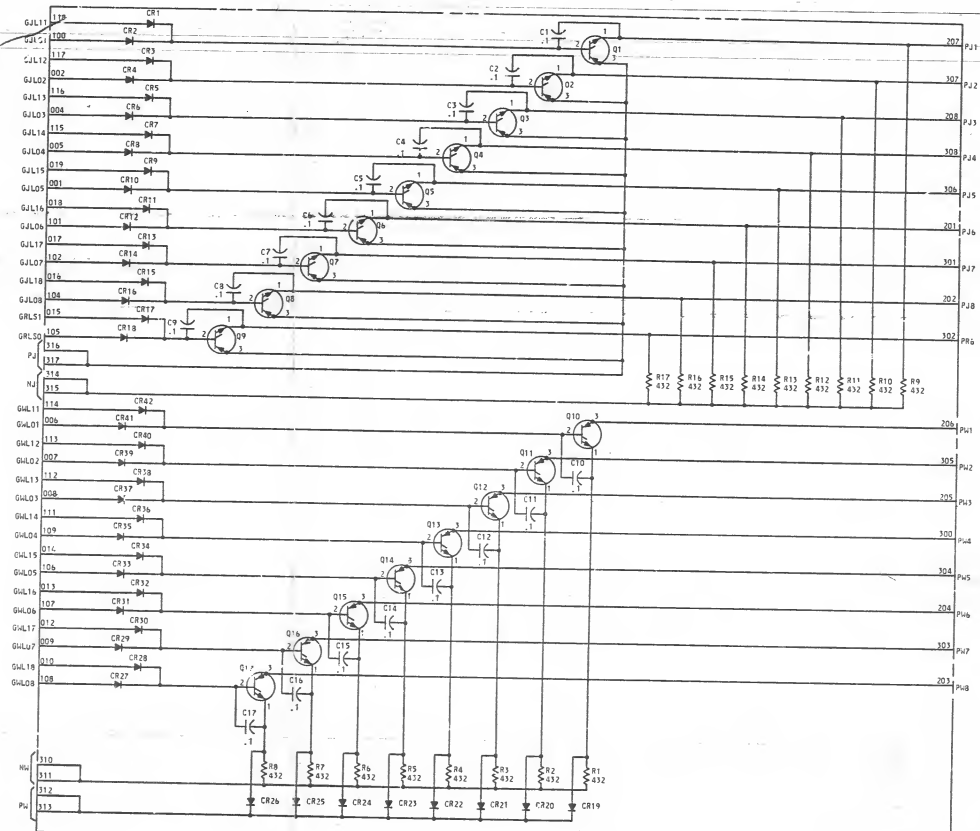
RESISTOR

DESIG	CODE
[17]R1-R17	KS-20810, L13, 432

TRANSISTOR

DESIG	CODE
[17]Q1-Q17	85A

STAGE THREE LEVEL SELECT CIRCUIT



201

PC190 CIRCUIT PAGE

BELL TELEPHONE LABORATORIES
INCORPORATED

CPS-FC190

SHEET 2

65